



# International Indo-French workshop on **Advancements in Hydrogen and Ammonia for Green Energy Transition**

**September 22-26 2025**

## Tentative Schedule

**September 22, 2025 Monday (Day 1)**

**Venue: IIT Bombay Aerospace Conference Hall**

| Time        | Session/Activity                                                                                                           | Speaker(s)/Details                                             |
|-------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 09:30–10:30 | Opening Ceremony & Welcome Address                                                                                         | Organizing Committee                                           |
| 10:30–11:00 |                                                                                                                            | <b>Prof. Sudarshan Kumar</b><br>IIT Bombay                     |
| 11:15–11:30 | Tea Break                                                                                                                  | -                                                              |
| 11:30–12:00 |                                                                                                                            | <b>V K Maheshwari</b><br>Executive Director – HPCL R&D         |
| 12:00–12:30 | Unraveling H <sub>2</sub> Autoignition Under Engine-Relevant Conditions: Kinetics Insights and Practical Implications      | Prof. Snehasish Panigrahy<br>IIT Delhi                         |
| 12:30–13:00 |                                                                                                                            | <b>S Sriram</b><br>HPCL Head – R&D Technology Development      |
| 13:00–14:00 | Lunch & Networking                                                                                                         | -                                                              |
| 14:00–14:30 |                                                                                                                            | <b>Dr. Ramachandra Rao B</b><br>Chief General Manager HPCL R&D |
| 14:30–15:00 | Effect of hydrogen-enrichment on soot and NO <sub>x</sub> emissions in gaseous alkane fuels                                | Prof. Irfan Mulla<br>IISC Bangalore                            |
| 15:00–15:30 | Combustion characteristics of H <sub>2</sub> & NH <sub>3</sub>                                                             | Prof. Ratna Kishore<br>Amrita University                       |
| 15:30–15:45 | Networking & Tea Break                                                                                                     |                                                                |
| 15:45–16:30 | Combustion characteristics of NH <sub>3</sub> -O <sub>2</sub> mixtures in the presence of H <sub>2</sub> O/CO <sub>2</sub> | Prof. Prathap Chockalingam<br>IIST Thiruvananthapuram          |
| 16:30–17:00 |                                                                                                                            | <b>Prof. Mahendra Reddy</b><br>IIT Kharagpur                   |

**September 23, 2025 Tuesday (Day 2)**

**📍 Venue: IIT Bombay Aerospace Conference Hall**

| <b>Time</b> | <b>Session/Activity</b>                                | <b>Speaker(s)/Details</b>                                                          |
|-------------|--------------------------------------------------------|------------------------------------------------------------------------------------|
| 09:30–10:15 | Decarbonised combustion                                | Prof. Salvatore Iavarone<br>CentraleSupélec (French)                               |
| 10:15–11:00 | Ammonia combustion                                     | Prof. Pierre Brequigny<br>Orleans University<br>(French)                           |
| 11:00–11:15 | Tea Break                                              | -                                                                                  |
| 11:20–12:05 | Diagnostics of hydrogen/ammonia flames                 | Prof. Gaetano Magnotti<br>INSA Rouen Normandie<br>(French)                         |
| 12:05–12:50 | Modeling and simulations of dual fuel flames           | Fabien Halter<br>Orleans University<br>(French)                                    |
| 12:50–14:00 | Lunch & Networking                                     | -                                                                                  |
| 14:00–14:45 | Chemical kinetics of hydrogen/ammonia combustion       | Prof. Pascale Desgroux<br>University of Lille<br>(French)                          |
| 14:45–15:30 | Industrial applications of hydrogen/ammonia combustion | Prof. Benedicte Cuenot<br>Ingénieur expert<br>SAFRAN (French)                      |
| 15:30–16:15 | Hydrogen combustion                                    | Prof. Pierre Boivin<br>Aix-Marseille Université<br>(French)                        |
| 16:15–17:00 | Decarbonised combustion                                | Prof. Sébastien Ducruix<br>CentraleSupélec,<br>Université Paris Saclay<br>(French) |

**September 24, 2025 Wednesday (Day 3)**

 **Venue:** IIT Bombay Aerospace Conference Hall

| Time        | Session/Activity | Speaker(s)/Details                                                         |
|-------------|------------------|----------------------------------------------------------------------------|
| 09:30–10:15 |                  | <b>Prof. Avinash Kumar Agarwal</b><br>IIT Jodhpur, IIT Kanpur              |
| 10:15–11:00 |                  | <b>Dr. K. Narayanan</b><br>Deputy General Manager<br>HPCL Green R&D Centre |
| 11:00–11:15 | Tea Break        | -                                                                          |
| 11:15–11:45 |                  | <b>Pramod Kumar</b><br>General Manager HPCL R&D                            |
| 11:45–12:15 |                  | <b>Prof. Varun Goel</b><br>NIT Hamirpur                                    |
| 12:15–12:45 |                  | <b>Dr. Muralidharan</b><br>Deputy General Manager-<br>Engine               |
| 12:45–13:15 |                  | <b>Prof. Pravendra Kumar,</b><br>IIT Madras                                |
| 13:15–14:15 | Lunch Break      | -                                                                          |
| 14:15–14:45 |                  | <b>Dr Kanaparthi Ramesh</b><br>Chief Manager HPCL R&D                      |
| 14:45–15:15 |                  | <b>Arun Kuniyal</b><br>Senior Manager HPCL R&D                             |
| 15:15–15:45 |                  | <b>Dr. Bharathi Panigrahy</b><br>Senior Manager HPCL R&D                   |
| 15:45–16:00 | Tea Break        |                                                                            |
| 16:00–16:30 |                  | <b>Sandiri Santhosh Kumar Reddy</b><br>Manager - HPCL R&D                  |
| 16:30–17:00 |                  | <b>Bhavesh Sharma</b><br>Manager - HPCL R&D                                |

## September 25, 2025 (Day 4)

### Mumbai Exploration & Networking

| Time        | Session/Activity                                                             | Location      |
|-------------|------------------------------------------------------------------------------|---------------|
| 09:30–12:30 | <b>City Tour:</b> Gateway of India, Marine Drive, Chhatrapati Shivaji Museum | Mumbai City   |
| 12:30–14:00 | <b>Lunch:</b> Authentic Maharashtrian Cuisine                                | Trishna       |
| 14:00–16:30 | <b>Shopping &amp; Leisure:</b> Colaba Causeway & Local Market                | Local Markets |
| 19:00–22:00 | <b>Gala Dinner &amp; Closing Networking Night</b>                            | Restaurant    |

## September 26, 2025 Friday (Day 5)

### Venue: IIT Bombay Aerospace Conference Hall and Research Lab Visit

| Time        | Session/Activity              | Location                                   |
|-------------|-------------------------------|--------------------------------------------|
| 09:30–10:15 |                               | <b>Prof. Atul Dhar</b><br>IIT Mandi        |
| 10:15–11:00 |                               | Prof. Chetankumar Patel<br>IIT Patna       |
| 11:00–11:15 | Tea Break                     |                                            |
| 11:15–12:00 |                               | <b>Prof. Saurabh Sharma</b><br>IIT Roorkee |
| 12:00–12:45 |                               | <b>Dr. Binitha G</b><br>Manager - HPCL R&D |
| 12:30–13:30 | Lunch                         | -                                          |
| 13:30–16:00 | Industry & Academic Lab Tours | Various IIT Research Labs                  |
| 16:00–16:30 | Valedictory session           | Organizing Committee                       |

## **List of participants from HPCL**

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